European Mineralogical Union

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EMU RESEARCH EXCELLENCE MEDAL 2025

One of the means by which the European Mineralogical Union (EMU) fosters and encourages research in the field of Mineralogical Sciences is to present a silver medal each year. The "**EMU Research Excellence Medal**" is presented to early career scientists (no more than 15 years since completion of PhD*) who have made significant contributions to research and who are active in strengthening European scientific links.

Call for nominations

The EMU Medal Committee calls upon the member societies and all European mineralogists for nominations every year. The nomination process is quite straightforward and requires preparation of a **Nomination package**, including following documents:

- cover letter (limit: 2 pages) from the nominator, highlighting the candidate's merit and outstanding achievement in mineralogy
- complete curriculum vitae, including a list of published articles and book reviews, but excluding conference and seminar abstracts and papers not yet been formally accepted for publication
- maximum of 3 supporting letters (limit: 2 pages) from established researchers in the field of mineralogy or closely related fields (we encourage international support)

Nomination packages for 2025, concatenated as a single PDF file, have to be sent to the Chair of the Medal Committee, **Dr. Sylvie Demouchy** (sylvie.demouchy@uca.fr), by **1 July 2025, 12:00 (CET)**.

Nomination package not including above mentioned items will not be considered by the EMU Medal Committee.

Past nominations must be resubmitted with an updated CV or they will not be considered further.

All members of the EMU societies are encouraged to consider nominating suitable candidates from among their colleagues, to recognize their outstanding scientific contributions to the mineralogical sciences (in the broadest sense). We recommend that nominators support only one candidate per year.

The medal is presented at an **award ceremony** during an international meeting of relevance to Mineralogical Sciences selected according to the winner's expertise, such as the Goldschmidt, European Mineralogical Conference, etc. The award ceremony is held prior to the **medal lecture** given during the conference. **EMU will provide partial support for the travel expenses**.

The ***European Journal of Mineralogy*** is pleased to offer to the recipient/recipients the possibility to publish one open access article as the first author free of charge.**

Please feel free to contact the President of the EMU, Prof. Isabelle Daniel (isabelle.daniel@univ-lyon1.fr), with questions or suggestions about the EMU Research Excellence Medal.

For more information, visit www.eurominunion.org/?page_id=152.

* The commission will take into account career breaks and other non-standard career paths, e.g., part time working patterns, parental leave, caring responsibilities, health issues, etc., if these have had an effect on the 15 years limit since completion of PhD. The limit is applied to the closing date for nominations.

** The manuscript must be submitted no later than 3 years after the date when the announcement of the attribution of the Medal is made.

MARTHA PAMATO & JAKUB PLÁŠIL

Medal for Research Excellence 2024

In 2024, the European Mineralogical Union (EMU) awarded two **EMU Research Excellence Medals**. One of the recipients is **Dr. Martha Giovanna Pamato** from the Department of Geosciences, University of Padova (Italy), and the second medal goes to **Dr. Jakub Plášil** from the Institute of Physics of the Czech Academy of Sciences, Prague (Czech Republic).

Both are outstanding scientists whose research has significantly advanced their respective fields. Dr. Pamato is recognized for her studies on the crystallography of deep Earth minerals and their geophysical signatures, while Dr. Plášil's work on uranium-bearing minerals has deepened our understanding of their complex crystal chemistry and environmental mobility of uranium in the geosphere.

For their exceptional scientific contributions and the international impact of their research, the EMU Medal Committee proudly honors Dr. Martha G. Pamato and Dr. Jakub Plášil with the 2024 Research Excellence Medal of the European Mineralogical Union. The medals will be officially presented during the **Goldschmidt 2025 Conference in Prague**. Both medalists have been invited to give their medal lectures during the conference.

Dr. Martha Giovanna Pamato

Dr. Martha G. Pamato started her scientific career as a PhD student with Dr. Tiziana Boffa Ballaran and Prof. Daniel James Frost at Bayreuth University (Germany). She continued her scientific path with a first post-doctoral stay at University of Illinois (USA), working with Prof. Jay D. Bass before to return to Europe to work with Prof. Lidunka Vočadlo at University College in London (UK). She was then awarded the prestigious Marie Skłodowska-Curie Actions (MSCA) fellowship, which also marks her return to her home country after 11 years abroad. In 2018, she was awarded the Ugo Panichi Prize from the Italian Mineralogical Association (SIMP), and, in 2020, she received the Dr. Eduard Gübelin Research Scholarship from the Gübelin Association for Research & Identification of Precious Stones (Switzerland). She is currently an ERC starting grant laureate with a project focusing on defects in diamonds as the key tracer to unravel the origin of Earth's water. She is now the head of the single-crystal X-ray diffraction and IRMS laboratories at the Department of Geosciences at University of Padova.

From the beginning, Martha Pamato was interested in crystallography and focused on minerals composing the deep Earth and their geophysical signatures. Using in situ, high-pressure X-ray diffraction techniques and Brillouin spectroscopy, Dr. Pamato was able to show that seismic velocities at the base of the Earth's transition zone were much faster than expected for either ultramafic or mafic mantle rocks. She has also worked on the determination of structure-vs.-property relationships of several major minerals of the deep Earth, venture in material sciences, and studied hydrogen-bearing phases to further constrain fundamental geological and mineralogical problems. She is now focusing on diamonds and how to extract reliable information from these precious witnesses to constrain volatiles elements occurrence and fate in the deep Earth.

Her publication list reflects her scientific creativity, rigor and impact to our understanding of the machine Earth, and always at the foremost boundary of experimental mineral physics. She has built a strong network of collaboration at the European and international scale. Her

dedication to teach and train the next generation of mineralogists is attested by her involvement in numerous workshops, summer schools, and sessions at international conferences, including the participation to local events focusing on science for kids and women in science (notably 2023 and 2024: International Day of Women and Girls in Science, Rome, Italy; 2022: Women in Sciences 2022, Padova; 2019: IRTG Career Evening for Female Scientists, Bayreuth; 2017 and 2018: GeoBus, Cheltenham).

In summary, Martha G. Pamato has emerged as a new leader in the field of crystallography and mineralogy, by linking top-edge experiments on deep Earth's materials and their primordial geophysical and geochemical consequences. Her scientific achievements, selfless cooperation at the international scale, and dedication to the next generation of mineralogists across Europe make Dr. Pamato a talented recipient of the EMU Medal for Research Excellence 2024.

Dr. Jakub Plášil

Jakub Plášil's research activity started with his PhD at Masaryk University in Brno (Czech Republic), under the supervision of Prof. Milan Novák, while also working as a research assistant at the National Museum in Prague. Since 2012, he works as a researcher at the Institute of Physics of the Czech Academy of Sciences.

His research activity has been devoted to the structural analyses of complicated crystalline materials using X-ray diffraction and precession electron diffraction, giving new insights into uranium-bearing minerals, nanocrystalline phases in nature, and with the description of new minerals (over 110 new minerals approved since 2008), along with intensive field explorations.

In a seminal series of articles, Dr. Plášil demonstrated that the structural topology of uranyl sulfate clusters in nature is not restricted by complex hydroxyl-bearing phases, but also includes structures with corner-sharing between isolated uranyl bipyramids and sulfate tetrahedra. These extraordinary structures act as carriers of uranium in highly acidic sulfate-bearing solutions, which sheds a new light on the oxidation and weathering processes of uranium deposits and affects our understanding of the mobilization of uranium in the geo- and biosphere.

As a leader in the essential field of new minerals for over a decade now, he was chairman of 2016 Conference on New Minerals and Mineralogy in the 21st Century. More recently, he co-organized the 9th European Conference on Mineralogy and Spectroscopy in 2019. He also developed new analytical tools that he distributed freely among the crystallography community over the years. He was awarded the Otto Wichterle Award from the Czech Academy of Sciences in 2014. Furthermore, he was a co-editor of the *EMU Notes in Mineralogy*, Volume 17 (Mineralogical Crystallography) and the editor-in-chief (2020–2023) of the *Journal of Geosciences*, the official publication of the Czech Geological Society.

Over the years, Jakub Plášil has strengthened the European network of mineralogists and crystallographers, in which his skills, both as lab researcher and field explorer, are unanimously praised by fellow mineralogists. His publication list is an excellent illustration of both his passion for mineralogy and outstanding workforce.

Jakub Plášil is an exceptionally able and gifted mineralogist. He will certainly continue to make major discoveries in the field of new minerals, complex crystal structures, and the environmental impact of uranium-bearing phases. For the relevance and international dimension of his work, Dr. Jakub Plášil is fully worthy to receive the EMU Medal for Research Excellence 2024.